REMARKS

Claims 15-20 remain pending in the application, claims 1-14 having been withdrawn from consideration and thus canceled.

Claims 15, 16, 18 and 19 over DiFrancisco in view of KIV Family

In the Office Action, claims 15, 16, 18 and 19 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over *Global Broadcast Service (GBS) End-to-End Services: Protocols and Encapsulation* by Michael DiFrancisco et al. ("DiFrancisco") in view of *KIV-7 Family* ("KIV Family"). The Applicants respectfully traverse the rejection.

Claims 15, 16, 18 and 19 recite a portable, deployable communication system that passes RED-side network data from a plurality of sources through an encryption device to provide bulk encrypted data. The bulk **ENCRYPTED data is then encapsulated** in IP packets. A BLACK-side router then routes the IP encapsulated, bulk encrypted data over a public Internet.

An important feature of the present invention is encapsulation of bulk encrypted data, allowing transmission over a public Internet.

The Examiner cites DiFrancisco, page 707, section 3.0 for allegedly teaching "encapsulating . . . bulk encrypted data in IP packets" (Office Action at 3) The relevant paragraph of this passage discloses:

> Both Video/Audio and Serial Stream data products are encapsulated directly to MPEG/DVB Packetized Elementary Streams (PES) for broadcast. The unclassified Store & Forward and Streaming IP Services, available via IP network connections, are encapsulated in TCP/IP and MPE prior to the MPEG-2/DVB encapsulation. The classified Store & Forward and Streaming IP Services, available via IP network connections, are encapsulated in TCP/IP, ***then*** into ATM for encryption and routing, and then MPE prior to the MPEG-2/DVB encapsulation. (emphasis added)

DiFrancisco doesn't at all teach encapsulation (or any other technique) of bulk encrypted data. DiFrancisco doesn't teach bulk ENCRYPTED

data at all. Rather, DiFrancisco at best teaches encapsulation of **NON**-encrypted data in TCP/IP, **THEN** the TCP/IP packets are **encrypted** into ATM. This isn't "bulk encrypted data" as claimed.

DiFrancisco does NOT disclose, teach or suggest encapsulation of bulk (already) ENCRYPTED data in IP packets, as claimed by all pending claims. This is an extremely important distinction in red/black secure classified system design that cannot merely be dismissed.

As explained in the specification of the present application, for example:

> Importantly, the deployable communication system allows for routing of bulk encrypted data, a feature not available in any other deployable communication system employing a KIV-7 encryption device. (p. 9, lines 18-20)

> It is important to understand that this direct connection to the Internet is on the black side of the deployable communication system, thus bulk encrypted data (i.e., secure data) may be conveniently routed along the public Internet 101 to a desired destination. This saves bandwidth on the relevant satellite, and also battery power necessary to drive the satellite transceiver. It also simply provides secure communications while in a hotel room or similar public place, near a cable modem, etc. (p. 6, lines 14-21)

Moreover, certain challenges exist with respect to encapsulation and routing of bulk ENCRYPTED data (that isn't present when encapsulating in IP, THEN encrypting in ATM, as disclosed by DiFrancisco). For instance:

> The routing information is not passed through the KIV-7HSB 200. The black side router 206 provides the routing of the WAN link. The red side router 202 provides the routing information for the network traffic and is contained in the encrypted payload. This information is passed from red side router 202 to red side router. (p. 9, lines 5-9)

> The deployable communication system communicates over the Internet (considered black with respect to the bulk encrypted data passed through the Ethernet port of the IP tube 204) with a suitable IP gateway (not shown). As long as both sides know the IP address of the other, and the IP tube 204 is properly configured, communications will be enabled. (p. 8, lines 19-24)

Bulk encrypted data is just that-it's encrypted. There is no unencrypted identifying information in the data stream for security purposes. According to the invention, such data is passed to a BLACK side of a classified system, and black-side encapsulated in IP, and routed on a public Internet. DiFrancisco fails to handle the routing of ANY bulk **encrypted** data as claimed. Rather, as shown in Fig. 3, DiFrancisco merely packetizes classified data.

The Examiner cites KIV Family as teaching "that one of the most common type 1 serial encryptors are KIV encryptor units." (Office Action at 4) Even so, KIV Family fails to disclose, teach or suggest encapsulation of bulk **ENCRYPTED data** in IP packets, as claimed by claims 15-20.

For at least these reasons, claims 15-20 are patentable over the prior art of record.

Moreover, the Examiner improperly cites 'inherent' features in several references as allegedly obviating the invention. Such use of 'inherent' features of any of the references cited in the section 103 rejections made herein are wholly improper, and additional evidence as to the patentability of the present invention.

In particular, the Examiner admits in multiple sections of the Office Action that certain features are not disclosed or taught by the cited reference(s). For example, at page 3, in the last paragraph, the Examiner admits that DiFrancisco fails to disclose or teach "bulk encryption" (a rather important feature of the present invention). But the Examiner alleges that "serial encryptors such as kg-194 and kg-84 ***inherently*** utilize bulk encryption" (emphasis added).

Under the doctrine of necessary inherency, anticipation may be established when a single prior art reference fails to disclose the claimed

invention ipsissimis verbis, but the natural and invariable practice of the reference would necessarily inherently meet all the elements of the claim See, e.g.; Verdegaal Bros., Inc. v. Union Oil Co. of Cal., 814 F.2d 628, 2 USPQ2d 1051 (Fed. Fir. 1987); In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986); Tyler Refrigeration v. Kysor Indus. Corp., 777 F.2s 687, 227 USPQ 845 (Fed. Cir. 1985); Ethyl Molded Products Co. v. Betts Package Inc., No. 85-111 1032 (D.C.E.D. Kent. 1988). The doctrine of inherency is available only when the inherency can be established as a certainty; probabilities are not sufficient. In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981); In re Chandler, 254 F.2d 396, 117 USPQ 361 (CCPA 1958); Ethyl Molded Prod. Co. at 1032.

But the concept of **inherency has no place in determinations of obviousness** under section 103, as opposed to anticipation under section 102, because "it confuses anticipation by inherency, i.e., lack of novelty, with obviousness, which, though anticipation is the epitome of obviousness, are separate and distinct concepts." Jones v. Hardy, 727 F.2s 1524, 1529, 220 USPQ 1021, 1025 (Fed. Cir. 1984); See also In re Grasselli, 713 F.2d 731, 739, 218 USPQ 769, 775-76 (Fed. Cir. 1983).

DiFrancisco does NOT disclose, teach or suggest bulk encrypted data, much less the encapsulation of bulk encrypted data in IP packets as claimed by claims 15-20.

Accordingly, for at least all the above reasons, claims 15, 16, 18 and 19 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

Claims 17 and 20 over DiFrancisco in view of KIV Family and ViaSat

In the Office Action, claims 17 and 20 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over DiFrancisco in view of KIV Family, and further in view of *KIV-21 ViaSat IP Crypto* ("ViaSat"). The Applicants respectfully traverse the rejection.

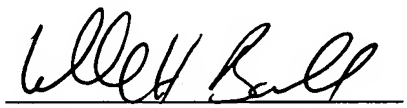
Claims 17 and 20 are dependent on claims 15 and 18, and are allowable for at least the same reasons as claims 15 and 18. ViaSat fails to teach seriously deficiencies in the primary references.

Accordingly, for at least all the above reasons, claims 17 and 20 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

Conclusion

All objections and/or rejections having been addressed, it is respectfully submitted that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,



William H. Bollman
Reg. No.: 36,457
Tel. (202) 261-1020
Fax. (202) 887-0336

MANELLI DENISON & SELTER PLLC
2000 M Street, N.W. 7th Floor
Washington D.C. 20036-3307